

R E M A R K S

Amendments and Clarifications

Claim 28 is amended to correct a typographical error. See page 13, lines 33-34, of applicants' specification.

In addition, counsel would like to point out certain typographical errors in the Remarks presented with the Amendment of March 22, 1993. At page 6, fourth line from the bottom, "R₂, R₃ and R₄" should read "R₂, R₃, R₄ and R₅." Also, at page 9, line 3, "do not" should be deleted. Thus, the line should read "However, applicants' claimed compounds exhibit a tri-"

In the Office Action of April 29, 1993, the cover sheet indicated an attached Notice re Patent Drawings, PTO-948. However, applicants' copy of the Office Action did not include a copy of this Notice. The examiner is requested to include a copy thereof with the next Office Action.

In addition, an Information Disclosure Statement was submitted on June 18, 1993. Consideration of the references cited therein by the examiner is respectfully requested. Also, the inclusion with the next Office Action of an initialled copy of the Form PTO-1449 indicating such consideration is requested.

Rejection under 35 U.S.C. §103 in view of U.S. 5,137,711

Weber et al. (U.S. '711) discloses a genus of DTPA and EDTA chelate complexes exhibiting a base structure of $\begin{matrix} \diagup & & \diagdown \\ & N-A-N & \\ \diagdown & & \diagup \end{matrix}$ wherein A is -CH₂CH₂- or -CH₂CH₂N(CH₂CO-R¹)CH₂CH₂-. As can be seen, the CH₂ groups which are the base structure within the definition of A exhibit no pendant structures. In particular, U.S. '711 fails to disclose or suggest pendant substituents containing phenyl groups. Compare the definition of applicants' pendant groups Z¹ and Z² wherein at least one of subscripts q and l is 1.

Weber et al. fails to suggest or provide any motivation which would lead one of ordinary skill in the art to modify the

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chelate complexes therein so as to exhibit a phenyl-containing pendant group. In the rejection, it is alleged that it would be obvious to modify the base structure of the Weber et al. compounds so as to exhibit a methyl pendant group. However, even this alleged modification of the chelate complexes disclosed by U.S. '711 does not anticipate or suggest the compounds of applicants' claimed invention.

In view of the above, it is respectfully submitted that U.S. '711 fails to render obvious applicants' claimed invention. Withdrawal of the rejection under 35 U.S.C. §103 is respectfully requested. ✓

**Rejection under 35 U.S.C. §103 in view
of U.S. '711 in combination with either
U.S. 5,198,208 or U.S. 4,652,519**

The disclosure of U.S. '711 is discussed above.

Berg et al. (U.S. '208) disclose chelating agents of the formula $X-CHR_1-NZ-(CHR_1)_n-A-(CHR_1)_m-NZ-CHR_1-X$. The groups R_1 within the backbone of the chelator represent hydrogen atoms, hydroxyalkyl, optionally hydroxylated alkoxy, or optionally hydroxylated alkoxyalkyl. As with the disclosure of U.S. '711, U.S. '208 fails to disclose or suggest pendant groups off of the backbone of the chelating agent which contain phenyl groups.

Warshawsky et al. (U.S. '519) disclose analogs of EDTA as bifunctional chelating agents. The base structure of the chelating agents is $\begin{array}{c} \diagup N-CH-CH_2-N \diagdown \\ | \\ (CH_2)_n \\ | \\ X \end{array}$. In the pendant group, $-(CH_2)_n-X$,

the terminal group X can be $-COOH$, $-NH_2$, $-CHO$, or $-N=CH(?)$ with the subscript n being 1-20. Alternatively, X can represent a phenyl group having NH_2 , $COOH$ or NO_2 as a parasubstituent and which is further substituted by group Y wherein Y is alkyl,


cycloalkyl or aryl. In these versions of the pendant group, the subscript n is 2-20.

U.S. '519 does not disclose or suggest a pendant group in accordance with applicants' claimed genus of compounds. The phenyl-containing pendant groups of U.S. '519 must exhibit a parasubstituent selected from NH_2 , COOH and NO_2 in combination with a further alkyl, cycloalkyl or aryl substituent. Compare applicants' pendant groups Z^1 and Z^2 . See, for example, the definition of terminal group R which is H, C_{1-6} -alkyl, C_{1-6} -alkyl substituted by OR^1 , or CH_2COOR^1 . Furthermore, U.S. '519 discloses only chelating agents having an EDTA backbone.

As can be seen from the above, none of the prior art references cited in the rejection discloses or suggests a pendant group in accordance with applicants' claimed compounds. Furthermore, the secondary references, U.S. '208 and U.S. '519, fail to provide motivation which would lead one of ordinary skill in the art to modify the compounds of the primary reference, U.S. '711, in such a manner as to obtain a compound of applicants' claimed genus.

In view of the remarks, withdrawal of the rejection under 35 U.S.C. §103 and allowance of the instant application is respectfully requested.

Respectfully submitted,



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Filed: July 29, 1993
BPH:kdp62:sch1199.amd